

In re Moore and Janoski, 169 USPQ 236 (CCPA 1971)

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(CCPA)
169 USPQ 236

Decided Apr. 1, 1971

No. 8428

U.S. Court of Customs and Patent Appeals

Headnotes

PATENTS

1. Claims - Indefinite - In general (§ 20.551)

Construction of specification and claims - By prior art (§ 22.20)

Construction of specification and claims - By specification and drawings - In general (§ 22.251)

Definiteness of language employed in claims must be analyzed - not in a vacuum, but always in light of teachings of prior art and of the particular application disclosure as it would be interpreted by one possessing ordinary level of skill in pertinent art; claims may appear indefinite when read in a vacuum, but may be definite upon reading of specification or prior art teachings; an otherwise definite claim in a vacuum may be uncertain when read upon specification and prior art.

2. Claims - Specification must support (§ 20.85)

Specification - Sufficiency of disclosure (§ 62.7)

Once having determined that subject matter defined by claims is particular and definite, analysis turns to first paragraph of 35 U.S.C. 112 to determine whether scope of protection

sought is supported by specification disclosure; inquiries include determining whether subject matter defined in claims is described in specification, whether specification disclosure as a whole is such as to enable one skilled in the art to make and use claimed invention, and whether best mode contemplated by inventor of carrying out that invention is set forth.

Particular patents-Alkyladamantanes

Moore and Janoski, Highly Fluorinated Alkyladamantanes, claims 1 to 7 of application allowed.

Case History and Disposition:

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Appeal from Board of Appeals of the Patent Office.

Application for patent of Robert E. Moore and Edward J. Janoski, Serial No. 440,614, filed Mar. 17, 1965; Patent Office Group 120. From decision rejecting claims 1 to 7, applicants appeal. Reversed.

Attorneys:

Barry A. Bisson, Wilmington, Del., for appellants.

S. Wm. Cochran (Joseph F. Nakamura of counsel) for Commissioner of Patents.

Judge:

Before Rich, Almond, Baldwin, and Lane, Associate Judges, and Durfee, Judge, United States Court of Claims, sitting by designation.

Opinion Text

Opinion By:

Baldwin, Judge.

The sole issue in this appeal is whether the Patent Office Board of Appeals was correct in affirming the rejection of claims 1-7 in appellants' application ¹ as failing to comply with the requirements of 35 U.S.C. 112. Five other claims were allowed.

The Invention

The subject matter of the appealed claims involves products which are obtained when hydrocarbon compounds of the following nature are fluorinated:

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The two-dimensional drawing shown above is supposed to represent a highly complex, three-dimensional compound referred to as an alkyl adamantane. According to appellants' specification, the carbon atoms of the basic adamantane nucleus are "arranged in a completely symmetrical, strainless manner such that four of the carbon atoms occupy bridgehead positions." This arrangement, and the fact that dehydrogenation cannot occur because of the bridgehead carbon atoms, produces a "highly stable hydrocarbon." The specification goes on to teach that when "these alkyladamantanes are subjected to fluorinating conditions effective to result in a degree of fluorination which is at least 75% of that corresponding to perfluorination." there results a highly fluorinated product with some very desirable properties.

The rejected claims fall into two groups. Claims 1 and 2 make up the first group, of which claim 1 is illustrative:

1. As a composition of matter, a mixture of highly fluorinated alkyladamantanes prepared by fluorinating an alkyladamantane

selected from the group consisting of 1, 3-dimethyladamantane, 1, 3, 5-trimethyladamantane, 1-ethyladamantane, 1-ethyl-3-methyladamantane and 1-ethyl-3, 5-dimethyladamantane,

and in which the degree of fluorination is at least 75% of that corresponding to perfluorination of said alkyladamantane.

Claims 3-7 are directed to compositions formed from specific alkyladamantanes. Claim 3 is illustrative:

3. As a composition of matter, highly fluorinated 1-ethyladamantane containing at least 15 fluorine atoms per molecule.

The allowed claims are directed to perfluorinated compositions, *i.e.*, wherein all available hydrogens are replaced by fluorine atoms. No references have been relied on.

The Rejection

It appears from the record that while appellants' claims were consistently rejected under 35

U.S.C. 112, the specific grounds for so rejecting were not fully articulated until the examiner's Answer to appellants' brief before the Board of Appeals. With respect to claims 1 and 2, the examiner there took the position that the recitation therein of "a mixture of highly fluorinated alkyladamantanes prepared by fluorinating an alkyladamantane" rendered those claims product-by-process claims. He went on to hold that, as such, the claims were indefinite since in the absence of a recitation of specific process limitations "it is not clear which products are produced" or "whether a given fluorination process will preferentially substitute the ring, chain or bridgehead carbon atoms".

As to claims 3-7, which employ the language "highly fluorinated" to modify the particular alkyladamantane recited, the examiner stated first that he was unsure "whether a regular generic product or product-by-process claim is intended." He then went on to indicate that if these claims were to be regarded as product-by-process claims he would hold them indefinite on the same grounds applied to claims 1 and 2. These grounds he later summarized as "there are insufficient process limitations to define the product produced by said process." If, on the other hand, the claims were intended to be "regular generic product" claims, the following alternative ground of rejection was set forth:

there is no evidence that any particular product within the scope of the claims can be prepared at will nor is there any disclosure of a single species. Thus there is no support for a claim generic to all conceivable species when only certain mixtures can be prepared.

Again, in response to certain of appellants' arguments, the examiner later expanded on this reasoning as follows:

in order for the disclosure to properly support these claims *it must be evident that all individual isomers covered can be prepared*. The present record does not make this evident. Even assuming that random fluorination occurs, the genus is readable on compounds which are not randomly fluorinated, e.g. those which have no fluorine on the alkyl groups, with all of the fluorine on the rings and bridge

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head. Thus, it is clear that these unsymmetrically fluorinated products cannot be prepared by random fluorination, yet they are encompassed by the claims. [Emphasis quoted.]

It seems indisputable that the examiner's reasoning in support of the rejection before us, as finally articulated, set forth two separate grounds for rejection. The first was that *all* of the claims, when viewed as product-by-process claims, are lacking in definiteness as required by the *second* paragraph of 35 U.S.C. 112. The second, applicable only to claims 3-7 and clearly alternative rather than cumulative to the first ground, was that, if these claims were viewed as being drawn to generic product coverage, they would not be supported by an adequate enabling disclosure as required by the *first* paragraph of § 112.

The Board of Appeals found "no reversible error in the rejection of the claims under 35

U.S.C. 112." However, for whatever reasons they saw fit, the board chose only to treat the question of the claims' definiteness, stating:

We view the claims before us as drawn to incomplete and therefore indefinite product-by-process claims in the language "highly fluorinated alkyladamantanes prepared by * * *" (claims 1-2) and "highly fluorinated" (claims 3-7). It is our view that the omission from the claims of process parameters, requisite to yield the desired fluorinated alkyladamantanes, renders the claims indefinite. It is too well-known in the art to belabor, that fluorination reactions broadly would yield not only the desired fluorinated alkyladamantanes but also as presented, undesired fluorinated degradation products of the alkyladamantanes.

With respect to Claims 3 through 7, we find the additional infirmity that while the language of each of these claims seems to be directed to a single compound, Claims 3 through 7 cover, in fact, any one or a mixture of more than one compound. If generic coverage was intended, appropriate definite generic claim language was available and no need is seen for resort to ambiguous claim terminology.

Opinion

The solicitor has not aided us in resolving the status of the issues on appeal, stating at one point in his brief that "an issue before the Court" is the correctness of the holdings by the examiner and the board that the claims are indefinite, and later on in his argument that the claims "are broader than the disclosure *and thereby* fail to particularly point out and distinctly claim the invention." (Emphasis added). In any event we perceive, in the proceedings leading up to this appeal, a definite lack of sensitivity to the specific language of 35 U.S.C. 112 and a resultant confusion of a number of issues which, procedurally at least, should have been articulated and treated separately.

For the sake of completeness we will treat the claims on appeal as if they were rejected under both the first and second paragraphs of § 112. Any analysis in this regard should begin with the determination of whether the claims satisfy the requirements of the second paragraph. It may appear awkward at first to consider the two paragraphs in inverse order but it should be realized that when the first paragraph speaks of "the invention", it can only be referring to that invention which the applicant wishes to have protected by the patent grant, i.e., the *claimed* invention. For this reason the claims must be analyzed first in order to determine exactly what subject matter they encompass. The subject matter there set out must be presumed, in the absence of evidence to the contrary, to be that "which the applicant regards as his invention."

[1] This first inquiry therefore is merely to determine whether the claims do, in fact, set out and circumscribe a particular area with a reasonable degree of precision and particularity. It is here where the definiteness of the language employed must be analyzed-not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art.²

[2] Once having determined that the subject matter defined by the claims is particular and definite, the analysis then turns to the first paragraph of section 112 to determine whether the scope of protection sought is supported and justified by the specification disclosure. This first paragraph analysis in itself contains several inquiries. Considering the language of the statute, it

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should be evident that these inquiries include determining whether the subject matter defined in the claims is described in the specification, whether the specification disclosure as a whole is such as to enable one skilled in the art to make and use the claimed invention, and whether the best mode contemplated by the inventor of carrying out that invention is set forth.

Two of the first paragraph requirements indicated above, i.e., the "description of the invention" and the "best mode" requirements, are relatively simple to comply with and thus will ordinarily demand minimal concern on the part of the Patent Office. We recently have had occasion to discuss the first of these requirements. See *In re DiLeone*, 58 CCPA —, 436 F.2d 1404, 168 USPQ 592 (1971), *In re Ahlbrecht*, 58 CCPA —, 435 F.2d 908, 168 USPQ 293 (1971), *In re Robins*, 57 CCPA 1321, 429 F.2d 452, 166 USPQ 552 (1970). As to the latter, see *In re Gay*, 50 CCPA 725, 309 F.2d 769, 135 USPQ 311 (1962). What is of maximum concern in any analysis of whether a particular claim is supported by the disclosure in an application is whether that disclosure contains sufficient teaching regarding the subject matter of the claims as to enable one skilled in the pertinent art to make *and* to use the claimed invention. These two requirements, "how to make" and "how to use" have sometimes been referred to in combination as the "enablement" requirement, but, in one form or another, have been the subject of extended discussion in this court of recent years. The relevant inquiry may be summed up as being whether the scope of enablement provided to one of ordinary skill in the art by the disclosure is such as to be commensurate with the scope of protection sought by the claims.

Applying now the analysis outlined above to the case before us, the position of the Board of Appeals regarding the definiteness of the claims before us can be justified only if it can be concluded that one of ordinary skill in this art, having appellants' disclosure and claims before him, would not be possessed of a reasonable degree of certainty as to the exact subject matter encompassed within the claims. We must conclude that the board's position cannot stand. We simply cannot understand why it is felt that process parameters are important here. Appellants clearly disclose that it is not the *type* of fluorination process which is important but the *fact* that the products are fluorinated and fluorinated to a specific minimum degree (spelled out by all the claims). When it was questioned whether known fluorination processes would produce the same type of product, appellants submitted an affidavit by one Schneider, an expert in the field, stating the opinion that "alkyl adamantanes when fluorinated by any of such procedures to the extent of at least 75% of that corresponding to perfluorination will convert into substantially the same highly fluorinated products regardless of which fluorination procedure is used." In the absence of anything of substance to the contrary, we find this opinion conclusive. The board's further comment that fluorination processes also yield undesired degradation products would be pertinent to the issue of definiteness if it were true *and* if the word "fluorinated" had to be

considered as a "product-by-process" limitation. The Schneider affidavit, however, not only rebuts the latter interpretation but also presents facts which appear to be inconsistent with the former assertion. In any event, since we have found that these claims are not product-by-process claims, such a contention, even if it were true would be irrelevant to the issue of what the claims define and whether they are definite since it is quite clear that appellants do not wish to claim these degradation products, if any, *but only* the highly fluorinated alkyl adamantanes which are not degraded.

Considering now any assertions that the claims are not supported by an adequate enabling disclosure and thus are unduly broad, we also find these to be not well taken. As appellants' disclosure makes clear and the Schneider affidavit confirms, when the recited alkyl adamantanes are fluorinated by known processes to a degree short of complete substitution of all hydrogen atoms, there occur mixtures of compounds randomly fluorinated to the specified degree. Of pertinence here is what we said in *In re Steinhauer*, 56 CCPA 1093, 410 F.2d 411, 161 USPQ 595, 599 (1969):

What results from these procedures is not pure compounds but mixtures of compounds. That is what appellants want, it is what they get, and it is what they claim. Appellants are not claiming *any* specific compound. To demand of them that they shall turn their investigations in another direction and carry on an undetermined amount of further research to determine just *where all* the substituents are positioned on each ring in *each* compound in each mixture of each working example in their specification seems to us beyond the requirements of the law.

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The decision of the Board of Appeals is *reversed*.

Footnotes

Footnote 1. Serial No. 440,614, filed March 17, 1965, for "Highly Fluorinated Alkyladamantanes."

Footnote 2. It is important here to understand that under this analysis claims which on first reading - in a vacuum, if you will - appear indefinite may upon a reading of the specification disclosure or prior art teachings become quite definite. It may be less obvious that this rule also applies in the reverse, making an otherwise definite claim take on an unreasonable degree of uncertainty. See *In re Cohn*, 58 CCPA —, — F.2d —, 169 USPQ 95 (1971), *In re Hammack*, 57 CCPA 1225, 427 F.2d 1378, 166 USPQ 204 (1970).

- End of Case -